

What is claimed is:

- 1) A method for fusing a first vertebra to a second adjacent vertebra, the method comprising:
  - a) providing an implant, the implant comprising a body having first and second opposite surfaces, wherein each of the surfaces includes at least one protruding member for securing the body to an adjacent vertebra and wherein the implant has sufficient tensile and sheer strength to permit fusion of the vertebrae and each of the surfaces and protruding members includes a bioactive coating;
  - b) forming at least one keyway in the first vertebra corresponding to each of the at least one protruding members on the first surface and at least one keyway in the second vertebra corresponding to each of the at least one protruding members on the second surface; and
  - c) inserting the implant between the first vertebrae and the second vertebra in a manner so that each protruding member slides into the corresponding keyway, such that fusion of the vertebrae is achieved without a bone graft.
- 2) A method according to claim 1, wherein at least one of the opposite surfaces of the implant includes a plurality of protruding members.
- 3) A method according to claim 1 wherein at least one protruding member of the implant includes a pair of bulges, the bulges on opposite sides of a plane perpendicular to the surface, the plane passing through a point on the at least one protruding member that is at a maximum distance from the surface, the bulges such that a projection of each bulge on the corresponding surface is larger than the projection on the corresponding surface of any portion of the protruding member that is closer to the surface than either bulge, so

that the at least one protruding member is shaped to provide keyed engagement with a vertebra that has been suitably prepared to receive the at least one member.

- 4) A method according to claim 1, wherein the at least one protruding member of the implant has a profile including a generally arcuate portion that encompasses more than one hundred and eighty degrees.
- 5) A method according to claim 1, wherein the at least one protruding member of the surface includes exactly two members.

02731/00103 278748.2